

PTO/SB/97 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

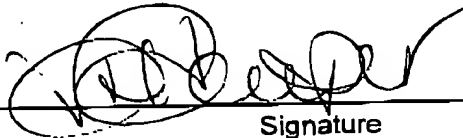
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09/965,096
FO6005 US NA
Amendment and Response
Petition for Extension of Time
Fee Transmittal

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PTO/SB/17 (01-03)

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FEE TRANSMITTAL for FY 2003

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☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 930.00

Complete if Known

Application Number 09/965096
Filing Date September 27, 2001
First Named Inventor JUNICHIRO FUJITA ET. AL.
Examiner Name Daniel E. Valencia
Art Unit 2872
Attorney Docket No. FO6005 US NA

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit
Account
Number
Deposit
Account
Name

04-1928

E. I. du Pont de Nemours and Company

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

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FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	18.00	
Multiple Dependent	-3** =	84.00	
	YES	280.00	

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	84	2201	42	Independent claims in excess of 3	
1203	280	2203	140	Multiple dependent claim, if not paid	
1204	84	2204	42	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					0.00

**or number previously paid, if greater. For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	930.00
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 930.00

SUBMITTED BY

Name (Print/Type) BARBARA C. SIEGELL Registration No. 30,684 Telephone (302) 992-4931
Signature *Barbara C. Siegell* Date March 13, 2003

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OFFICE OF PETITIONS

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of: Junichiro Fujita et al

CASE NO. 6005

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SERIAL NO. 09/965,096

GROUP ART UNIT: 1713

SEP 29 2003

OFFICE OF PETITIONS

FILED: September 27, 2001

EXAMINER: Daniel E. Valencia

FOR: POLARIZATION INDEPENDENT WAVEGUIDE
OPTICAL ISOLATOR AND CIRCULATOR

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Assistant Commissioner for Patents
Washington, D.C. 20231

MAR 13 2003

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Sir:

AMENDMENT AND RESPONSE

This is in response to the office action mailed on September 13, 2002. A request for a three month extension to respond and fee accompany this response.

AMENDMENT

Please cancel: Claims 1-21.

22. (amended herein) A polarization independent optical isolator/circulator based on a nonreciprocal phase shifter comprising:

-- first and second Mach-Zehnder waveguide interferometers, each having an input port and an output port, and each one having two interferometer arms, with nonreciprocal phase shifters in the interferometer arms;

said phase shifters comprising a plurality of half-wave retarders or quarter wave retarders; and one or more Faraday rotators with a total rotation of 45°, wherein the slow axes of the retarders are either parallel or perpendicular to each other so that with phase or power compensation between the two paths by either active or passive means, a light that enters through one of the input ports is split in the first interferometer into two linearly polarized components and recombined into one of the output ports in the second interferometer.

23. (amended herein) The polarization independent optical isolator/circulator of Claim 22 wherein is disposed in one path of each interferometer a half-wave retarder.